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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/706,494

11/12/2003

Do-In Choi

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EXAMINER

KANG, SUK JIN.

ART UNIT

PAPER NUMBER

2616

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DELIVERY MODE

07/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

5

<b>Office Action Summary</b>	Application No. 10/706,494	Applicant(s) CHOI ET AL.	
	Examiner Suk Jin Kang	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/9/06 and 4/16/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Receipt is acknowledged of papers which have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statements submitted on August 8, 2006 and April 16, 2007 have been considered by the Examiner and made of record in the application.

### ***Specification***

3. The disclosure is objected to because of the following informalities:
  - a) On page 2 line 18, replace "TMD" with --TDM--;
  - b) On page 12 line 4, replace "REMUS" with --REMUX--;

Appropriate correction is required.

### ***Claim Objections***

4. **Claims 1 and 6** are objected to because of the following informalities:
  - a) On lines 2 and 9 of claim 1, replace "an" with --a--;
  - b) On line 2 of claim 6, replace "match" with --matches-- after "that";

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 1, 2, 4-7, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida** (U.S. Patent # 6,434,171 B1) in view of **Coffin, III et al.** (U.S. Patent Application Publication # 2003/0169783 A1).

Consider **claim 1**, Ishida discloses a subscriber distribution system for distributing broadcasting data to subscribers through an subscriber network, the subscriber distribution system comprising: a program id (PID) filter section (21a, PID filter, figure 2 and 8) for checking contents of an inputted MPEG2 multiple program transport streams (MPTS) frame and splitting the MPEG2 MPTS frame into a plurality of single program transport streams (SPTS) (column 5 lines 20-25); a table regenerator (21d, figure 2 and 8) for regenerating a program allocation table (PAT) and a program map table (PMT) that corresponds with the SPTS by changing contents in the PAT and the PMT (figure 10, column 2 lines 7-23, column 5 lines 27-32); an SPTS splitting section (21, figure 2 and 8); a subscriber distribution section (15, figure 1) for selecting the SPTS requested by subscribers (column 4 lines 47-54); and a control section (14, service information control unit, figure 7 and 18, DSTB control unit, figure 1 and 7) receiving MPTS information from a higher network to provide MPTS information to the PID filter section and the table regenerator, receiving a request for a program from subscribers, and transferring the request to the subscriber distribution section (column 10 lines 63-67, column 11 lines 1-15 and 41-52, column 12 lines 9-19), but may not expressly disclose an SPTS storing section for storing the SPTS at high speed in a memory area of a buffer, which is assigned to subscribers according to PIDs and storing the SPTS in the memory area of the buffer assigned to subscribers.

In the same field of endeavor, Coffin, III et al. discloses an SPTS storing section for storing the SPTS at high speed in a memory area of a buffer, which is assigned to subscribers according to PIDs and storing the SPTS in the memory area of the buffer assigned to subscribers (input fifo & pid store, figure 5 and 6, [0053], [0054]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the storing sections and buffers as taught by Coffin, III et al. with the subscriber distribution system as disclosed by Ishida for the purpose of improving the flexibility of managing a subscriber distribution system.

Consider **claim 2**, and as applied to claim 1, Ishida, as modified by Coffin, III et al., discloses the subscriber distribution system wherein a quantity of filters in the PID filter section corresponds to a quantity of SPTSs that the MPTS has been split into (figure 2, column 5 lines 13-25).

Consider **claim 4**, and as applied to claim 1, Ishida, as modified by Coffin, III et al., discloses the claimed invention, furthermore, Coffin, III et al. discloses the subscriber distribution system wherein the SPTS splitting and storing section and the subscriber distribution section adopt a direct memory access (DMA) technique ([0017], [0038]).

Consider **claim 5**, and as applied to claim 1, Ishida, as modified by Coffin, III et al., discloses the subscriber distribution system wherein the PID filter section includes at least one PID filter for filtering a plurality of PIDs contained in the MPEG2 MPTS (figure 2, column 5 lines 13-25).

Consider **claim 6**, and as applied to claim 1, Ishida, as modified by Coffin, III et al., discloses the subscriber distribution system further comprising a subscriber interface (DSTB, figure 1, figure 5) for converting the SPTS stored that match with each subscriber into a stream to transmit the SPTS to each subscriber (column 4 lines 23-36).

Consider **claim 7**, Ishida discloses a method for distributing broadcasting data to subscribers through a subscriber network, the method comprising the steps of: receiving an MPEG2 multiple program transport streams (MPTS) from a higher network and splitting an MPTS frame into a plurality of single program transport streams (SPTS) according to program identification (PID) obtained through MPTS information and MPTS table information (column 4 lines 47-54, column 5 lines 20-25); regenerating a program allocation table (PAT) and a program mapping table (PMT) that corresponds with the SPTS by changing contents of the PAT and the PMT (figure 10, column 2 lines 7-23, column 5 lines 27-32); and transmitting broadcasting data to each subscriber (abstract, column 1 lines 6-13, column 12 lines 34-47) but may not expressly disclose storing at least one SPTS corresponding to each subscriber as subscribers request a program.

In the same field of endeavor, Coffin, III et al. discloses storing at least one SPTS corresponding to each subscriber as subscribers request a program ([0053], [0054]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate storing SPTS as taught by Coffin, III et al. with the method as disclosed by Ishida for the purpose of improving the flexibility of managing a subscriber distribution system.

Consider **claim 9**, and as applied to claim 7, Ishida, as modified by Coffin, III et al., discloses the method as claimed in claim 7, further comprising the step of providing a one-to-one correspondence between a number of SPTSs and the number of PID filters required (figure 2, column 5 lines 13-25).

7. **Claims 3 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida** (U.S. Patent # 6,434,171 B1) in view of **Coffin, III et al.** (U.S. Patent Application Publication # 2003/0169783 A1), and further in view of **Dekeyser** (U.S. Patent # 6,892,389 B1).

Consider **claims 3 and 8**, and as applied to claim 1 and 7, respectively, Ishida, as modified by Coffin, III et al., discloses the claimed invention, but may not expressly disclose the method and subscriber distribution system wherein the control section receives program information requested by subscribers through a channel change protocol (CCP).

In the same field of endeavor, Dekeyser discloses the method and subscriber distribution system wherein the control section receives program information requested by subscribers through a channel change protocol (CCP) (column 3 lines 27-47, column 5 lines 3-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the channel change protocol as taught by Dekeyser with the method and system as disclosed by Ishida, as modified by Coffin,



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III et al., for the purpose of improving the flexibility of managing a subscriber distribution system.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

a) Kato et al. (U.S. Patent # 6,233,255 B1)

b) Perng et al. (U.S. Patent Application Publication # 2004/0002969 A1)

c) Pinder (U.S. Patent Application Publication # 2003/0002577 A1)

9. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

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Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Suk Jin Kang whose telephone number is (571) 270-1771. The examiner can normally be reached on Monday - Friday 8:00-5:00 EST.

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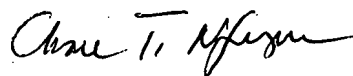
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Suk Jin Kang  
S.J.K./sjk

June 27, 2007



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